

REMARKS

Claims 1-22 were pending when the Application was last examined. Claims 1, 11, 21 and 22 are being amended. Claims 1-20 and 22 are presently pending of which claims 1, 11 and 22 are independent.

Examiner's Interview

Applicants thank the Examiner for courtesies extended to Applicants during the Examiner's telephonic interview with Applicants' representative, which took place on December 3, 2007. During the aforesaid interview, Applicants' representative presented proposed claim amendments to the Examiner and Examiner's supervisor Patrick Edouard. The Examiner and Examiner's supervisor have agreed with Applicants' representative that the presented amendments and arguments would overcome the prior art of record, but indicated that the amendments to the claims would necessitate a new search and would require the filing of an RCE. Applicants respectfully submit that this statement of the substance of the interview fully complies with the requirements of MPEP 713.04 and that no fee is believed to be due.

35 U.S.C. §101 Rejections

Claim 21 is rejected under 35 U.S.C. §101 as being allegedly directed to non-statutory subject matter. In response, Applicants traverse this rejection in view of Applicants' amendments to claim 21 and further in view of the following arguments.

Specifically, claim 21 is amended to recite "an apparatus operable to generate a carrier wave." As the Examiner undoubtedly appreciates, the recited apparatus is patentable subject

matter under the provisions of the aforesaid 35 U.S.C. §101. Thus, the subject matter recited in claim 21 is eligible for patent protection under the law.

35 U.S.C. §103 Rejections

Claims 1, 2 and 6-10 are rejected under 35 U.S.C. §103 as being allegedly unpatentable over Yang (Visualizing Spoken Discourse: Prosodic Form and Disclosure Functions of Interruptions) in view of Jurafsky (Automatic Detection of Discourse Structure for Speech Recognition and Understanding). Claims 4, 5, 11, 12 and 13-22 are rejected under 35 U.S.C. §103 as being allegedly unpatentable over Yang in view of Jurafsky and further in view of Shriberg (Prosody-Based Automatic Segmentation of Speech into Sentences and Topics). Applicants respectfully traverse all of the above rejections in view of the Applicants' amendments to independent claims 1, 11, 21 and 22 and further in view of the following arguments.

Without admitting that the prior art of record taught or suggested any of the limitations of the original claim 1, to facilitate the speedy prosecution of this patent application, this claim is being amended to recite "A method of determining a predictive model for discourse functions comprising the steps of: determining a training corpus of speech utterances; determining at least one discourse function associated with the speech utterances; determining prosodic features associated with the speech utterances; and determining a predictive model of discourse functions by associating the prosodic features with the discourse function, wherein the predictive model of discourse functions is operable to predict a likelihood that a specific recognized speech reflects a specific discourse function." (Emphasis added.) Support for these amendments may be found

throughout the specification and drawings and, for example, in paragraph [0039] and [0043] of the specification. Applicants respectfully submit that subject matter recited in claim 1 is not taught or suggested by Yang and Jurafsky.

First, Yang does not teach the “predictive model” of claim 1. The abstract of Yang is cited for teaching “determining at least on predictive model of discourse functions” of claim 1. (Office action, p. 4.) According to the Office action, Yang shows that “the relationship between discourse and prosody are modeled graphically for a conversation.” (Id.)

The graphs of Yang, however, are not predictive models. The abstract of Yang states that “By representing discourse graphically, we also show that interruptions are part of the ... coherence that is brought about through ... prosodic patterns of discourse.” (Emphasis added.) So, Yang is just showing that a relationship exists between prosody and interruptions and stops there. Each graph of Yang is directed to a special case and merely shows that a relationship exists. The relationship is not further characterized in Yang and this reference does not establish a predictive model that may be used to predict a particular type of interruption from prosodic data.

As such, Yang does not teach or suggest “determining a predictive model of discourse functions by associating the prosodic features with the discourse function,” of claim 1. (Emphasis added.)

Second, Jurafsky does not teach this element either. Jurafsky is not cited for teaching the above element and is instead cited for teaching that “the predictive model ... is operable to

predict a likelihood that a specific recognized speech reflects a specific discourse function” of claim 1. (Office action, p. 4.)

Jurafsky appears to be using three different models separately and then combining the results. (Jurafsky, bottom p. 90 and top p. 91.) In section 3.4, Jurafsky discusses combining the three knowledge sources of words, prosody and discourse. However, it does not discuss correlating prosody with discourse grammar and does not teach or suggest developing one model “by associating the prosodic features with the discourse function,” as claimed in claim 1. Jurafsky develops a combined dialog act detector using prosody as one factor and even emphasizes that “the prosodic component of these combined detection results is still preliminary.” (Jurafsky, section 3.4.)

As such, neither Yang nor Jurafsky teach or suggest “determining a predictive model of discourse functions by associating the prosodic features with the discourse function” of claim 1 and their combination cannot teach this element either.

Independent claims 11 and 21 recite in part “determining a predictive model for discourse functions by associating the prosodic features with the discourse function.” Applicants respectfully submit that at least this element of claims 11 and 21 is not taught or suggested by Yang and Jurafsky.

Independent claim 22 recites in part “determining at least one predictive model of discourse functions by associating the prosodic features with the discourse functions,” which is not taught or suggested by Yang and Jurafsky.

Shriberg is cited by the Examiner for its teaching of using a processor and using machine learning techniques and the cited aspects of Shriberg do not cure the aforesaid deficiency of Yang and Jurafsky in their lack of teaching a predictive model of discourse functions.

Accordingly, because neither Jurafsky, nor Yang, nor Shriberg, nor any combination thereof, teach or suggest the claimed “determining a predictive model for discourse functions by associating the prosodic features with the discourse function”, claims 1, 11, 21 and 22 are believed to be patentable over the cited references.

With respect to claims 2-10 and 12-20, while continuing to respectfully traverse the Examiner’s characterization of the teachings of prior art used by the Examiner in rejecting those claims, Applicants respectfully submit that the rejection of claims 2-10 and 12-20 is rendered moot by the present amendment of the parent claims 1 and 11 and that these claims are patentable by definition, at least by virtue of their dependence on the patentable amended claims 1 and 11. Thus, withdrawal of the rejections and allowance of these claims are respectfully requested.

Conclusion

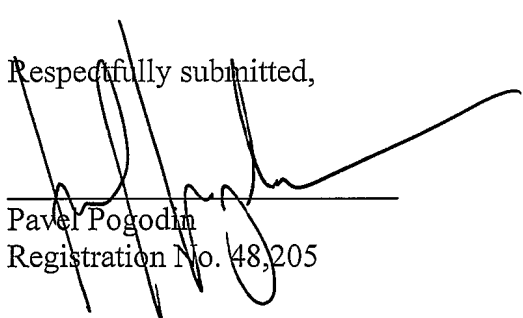
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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CUSTOMER NUMBER

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